

claims 12, 13 and 35 and claim 17 has been cancelled. The subject matter of claim 22 has been added to claim 18 and claim 22 has been cancelled.

Claims 45 and 55 have now been amended to provide that the cooling means has an O-ring vacuum seal and is capable of controlling the temperature of the vacuum seal to prevent damage thereto. Support for this amendment is found, inter alia, on page 68, line 7, page 69, lines 2-5 and page 131, lines 8-15. On page 69, it is disclosed that to prevent the O-ring from being broken by the heat, a cooling medium is provided. On page 131, it is noted that the temperature of the vacuum seal portion was maintained at a temperature at which the O-rings can be used satisfactorily. It was noted that no leakage occurred which is generally accompanied by a gradual increase of pressure due to breakage of the vacuum seal portion.

The claims were rejected as either anticipated by Schmitt '649 or as obvious over Schmitt '649, either alone or in combination with Ohta, Smith, JP '129 or JP '820. The grounds of rejection as set forth on pages 3-8 of the outstanding action are respectfully traversed.

Schmitt '649 fails to teach or suggest use of a cooling means having an O-ring vacuum seal and which is capable of controlling the temperature of the seal to prevent damage resulting in leakage or the like. Accordingly, the anticipation rejection of claims 45, 46, 53 and 55, lacking a key feature of the present claimed invention, should be withdrawn.

Claims 23-25, 35, 48, 49 and 51 were rejected as obvious over Schmitt '649. With regard to the rejection of claim 23, Schmitt fails to teach or suggest a

recovering means within 5 cm. of the chemical reaction causing means for recovering a chemical reaction product generated by the chemical reaction causing means.

With regard to the rejection of claim 35, it is clear that Schmitt fails to teach or suggest providing a high-melting metal filament in an exhaust gas flow path. Schmitt merely teaches baffle assemblies.

With regard to the rejection of claim 12, deemed obvious over Schmitt in view of Ohta, it is noted the Examiner employs Ohta for a CVD apparatus using a tungsten hot filament. However, employing a filament for thermal CVD fails to teach or suggest providing a high-melting metal filament in an exhaust gas flow path.

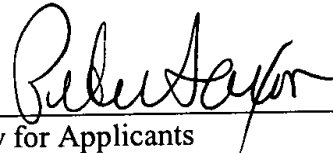
The Examiner rejected claim 13 as obvious over Schmitt in view of Smith. Claim 13 provides, inter alia, a means for causing a chemical reaction between a processing space and exhaust means which includes a heat generating member comprising phosphorous atoms, wherein the means is provided in exhaust gas flow path in an exhaust pipe. Schmitt fails to teach or suggest the heat generating member comprising phosphorous atoms and the means for causing the reaction provided in an exhaust gas flow path in an exhaust pipe.

The secondary references cited do not remedy the defects or deficiencies of Schmitt.

Wherefore, Applicants respectfully request that the amendment be entered, the final rejection withdrawn, the claims allowed and the case passed to issue. The amendment should be entered because it places the case in allowable form, cancels claims, reduces the issues and places the case in better form for possible appeal.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Robert Taylor", written over a horizontal line.

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APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

--12. (Amended) A processing apparatus having a processing chamber for processing a substrate or a film therein and an exhaust means for exhausting a gas from the processing chamber, comprising a trap means provided between the processing chamber and the exhaust means, for causing a chemical reaction in a non-reacted gas and/or a by-product during processing, said trap means provided in an exhaust gas flow path in an exhaust pipe provided between the processing chamber and the exhaust means, and a filament provided inside the trap means and comprised of a metal or an alloy comprising as a main component at least one of tungsten, molybdenum and rhenium.

13. (Amended) A processing apparatus having a processing space for processing a substrate or a film therein and an exhaust means for exhausting a gas from the processing space, comprising means provided between the processing space and the exhaust means, for causing a chemical reaction in a non-reacted gas and/or a by-product during processing of the substrate or the film, wherein the means comprises a heat generating chamber comprising phosphorous (P) atoms, said means for causing a chemical reaction provided in an exhaust gas flow path in an exhaust pipe provided between the processing chamber and the exhaust means.

18. (Amended) A processing apparatus having a processing space for processing a substrate or a film therein and an exhaust means for exhausting a gas from the processing space, comprising between the processing space and the exhaust means, means for causing a chemical reaction in a non-reacted gas and/or a by-product during processing of the substrate or the film, wherein the means comprises a heat generating member comprising silicon (Si) atoms, and wherein the means for causing the chemical reaction is provided in an exhaust gas flow path in an exhaust pipe provided between the processing space and the exhaust means.

35. (Twice Amended) A processing apparatus having a processing chamber and an exhaust means for exhausting a gas from the processing chamber, comprising, in an exhaust path connecting the processing chamber and the exhaust means, a region with a different mean velocity of the gas from that of the processing chamber, and a chemical reaction causing means provided in the region, for causing a chemical reaction in a non-reacted gas and/or a by product exhaust from the processing chamber, wherein the mean velocity of the gas of the region having the chemical reaction causing means is larger than the mean velocity of the processing chamber, [and] wherein the chemical reaction causing means comprises a high-melting metal filament and wherein the chemical reaction causing means is provided in an exhaust gas flow path in an exhaust pipe provided between the processing space and the exhaust means.

45. (Twice Amended) A processing apparatus having a processing space and an exhaust means for exhausting a gas from the processing space, comprising a chemical reaction causing means provided in an exhaust path connecting the processing space and the exhaust means, for causing a chemical reaction in a non-reacted gas and/or a by-product during the processing, and a cooling means disposed in the exhaust path in the vicinity of the chemical reaction causing means and provided on the side of the exhaust means of the chemical reaction causing means, said cooling means having an O-ring vacuum seal and being capable of controlling the temperature of the vacuum seal to prevent damage thereto.

55. (Twice Amended) A processing apparatus having a processing space and an exhaust means for exhausting a gas from the processing space, comprising a chemical reaction causing means provided in an exhaust path between the processing space in a chamber and the exhaust means, for causing a chemical reaction in a non-reacted gas and/or a by-product during the processing, and a cooling means provided in at least a part of the exhaust path between the processing space and the exhaust means, said cooling means having an O-ring vacuum seal and being capable of controlling the temperature of the vacuum seal to prevent damage thereto.--